## TEXACO INC. INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET



NOTE: NO REPRESENTATION IS MADE AS TO THE ACCURACY OF THE INFORMATION HEREIN. SEE PAGE 5 FOR CONDITIONS UNDER WHICH DATA ARE FURNISHED.

Trade Name and Syno			
02308 THERMATE			
Manufacturer's Name	Emergency Telephone No.		
Texaco Inc	(914) 831-3400 ext. 406		
Address	eacon, NY 12508		
	Family or Description		
Industrial Gre			
THIS PRODUCT IS CL	U		
HAZARDOUS	BY DEFINITION NO.(S) ON ATTACHED EXPLANATION SHEETS		
WARNING STATEMENT: NONE CONSIDERED NECESSARY.			
NONE	CONSIDERED RECESSARI.		
OCCUPATIONAL	CONTROL PROCEDURES		
Protective Equipment (			
Eyes:	Chemical type goggles or face shield optional.		
Skin:	Exposed employes should exercise reasonable personal cleanliness;		
	this includes cleansing exposed skin areas several times daily		
	with soap and water, and laundering or dry cleaning soiled work		
	clothing at least weekly.		
Inhalation:	None required when handling at minimum feasible temperatures.		
Ventilation:	Normal		
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Permissible Concentrat	· <del>- · - ·</del>		
Air:	None established for grease.		
EMERGENCY AND	FIRST AID PROCEDURES		
minus Aisl			
First Aid Eyes:	As with most foreign materials, should eye contact occur, flush		
	eyes with plenty of water.		
Skin:	Wash exposed areas with soap and water.		
In4i	None considered necessary.		
Ingestion:	A CONSTRUCTION TO CONSTRUCT OF THE CONSTRUCTION OF THE CONSTRUCTIO		
	[8] W [3]		
	H % 0 1/3 = 1		
Inhalation:	None considered necessary.		
Other Instructions:	None.		
- Control Moderner	none.		

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PHYSIOLOGICAL I	EFFECTS: Code No. 02308			
Effects of Exposure Acute: Eyes:	Believed to be minimally irritating.			
Skin:	Believed to be slightly irritating with possible redness, edema, or drying of the skin.			
Respiratory System:	Believed to be minimally irritating.			
Chronic:	N.D.			
Other:				
Sensitization Properties	s:			
Skin: Yes No Unknown X Respiratory: Yes No Unknown X				
Median Lethal Dose (LI Oral Inhalation Dermal Other	N.D.; believed to be G.T. 5 g/kg (rat); practically non-toxic  N.D.  N.D.; believed to be G.T. 3 g/kg (rabbit); practically non-toxic  N.D.; believed to be G.T. 3 g/kg (rabbit); practically non-toxic  N. D.			
Irritation Index, Estima Skin	tion of Irritation (Species) N.D.; believed to be L.T. 0.5/8.0 (rabbit); no appreciable effect N.D.; believed to be L.T. 15/110 (rabbit); no appreciable effect e N.D.; None expected other than possible minimal irritation			
FIRE PROTECTION INFORMATION				
Ignition Temp. F Flammable Limits%	N.D. Flash Point F. (Method) N.D. (grease)  Lower N.D. Upper N.D.			
Products Evolved Whe	en Subjected to Heat or Combustion: Carbon monoxide, carbon dioxide, aldehydes and ketones, combustion products of nitrogen and sulfur.			
Recommended Fire Extinguishing Agents And Special Procedures:  According to the National Fire Protection Association Guide, use water spray, dry chemical, foam, or carbon dioxide.  Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.  Unusual or Explosive Hazards:  None.				



ENVIRONMENTA	L PROTECTION Code No. 02308		
Waste Disposal Met	nod: Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixture, processes, etc. may render the result- ing material hazardous.(See Remarks for Waste Classification.)		
Procedures in Case	of Breakage or Leakage: Contain spill if possible. Wipe up or absorb on suitable material and shovel up.		
Remarks:	Waste Classification: Product has been evaluated for RCRA characteristics and does not meet criteria of a hazardous waste if discarded in its purchased form.		
PRECAUTIONAR	Y LABEL		
NONE CONSIDERED NECESSARY.			
***************************************			
Requirements for Transportation, Handling and Storage: Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.			
DOT Proper Shipping DOT Hazard Class (if			
CHEMICAL AND	PHYSICAL PROPERTIES		
Boiling Point (PF)	N.D. Vapor Pressure N.D. (mmHg)		
Specific Gravity	V.D. (H <sub>2</sub> O=1) Vapor Density N.D. (Air=1)		
Appearance and Odor	Dark red		
pH of undiluted prod	uct N.A. Solubility N.D.		
Percent Volatile by V	Volume $N.D.$ Evaporation $N.D.$ ( )=1		
Viscosity <u>cSt</u> @	40 C = 37 Other		
Hazardous Polymerizations ———— Occur X Do not occur  The Material Reacts Violently With: (If others is checked below, see additional comments on page 4 for futher details)  Air Water Heat Strong Oxidizers Others None of These			

N.D. - Not Determined N.A. - Not Applicable < Less Than > Greater Than



COMPOSITION Code No.	02308			
Components Presenting a Significant Hazard	%			
None				
	į			
Other Components	0/			
Other Components Petroleum ail	% Greater than 95			
Additive package containing:				
aluminum, silicon	1 - 5			
ADDITIONAL COMMENTS				
TEXACO INTENDS TO COMPLY FULLY WITH PROVISIONS OF THE TOXIC SUBSTANCES CONTROL AND ADDRESS OF THE TOXIC SUBSTANCES CONTROL SUBST	CT			
STATE OF MICHIGAN CRITICAL MATERIALS ACT (REVISED 1984)				
No critical materials present.				
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To describe and other and of the state of th				
To determine applicability or effect of any law or regulation with respect to this product, user should consult his legal advisor or the appropriate government agency. Texaco does not undertake to furnish advice on such matters.				
By R. T. Richards Title Mgr. Env. Conservation & Toxicology				
	5.Y			
Date New Revised, Supersedes				



NOTE: THIS DATA IS FURNISHED GRATUITOUSLY INDEPENDENT OF ANY SALE
OF THE PRODUCT. ONLY FOR YOUR INVESTIGATION AND INDEPENDENT VERIFI—
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## EXPLANATION OF THE INDUSTRIAL HYGIENE TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION

Trade Name and Synonyms

Refer to the code number and name under which the product is marketed and the common commercial name of the product.

Manufacturer's Name and Address Self explanatory.

Chemical Name and/or Family or Description

Refer to chemical, generic, or descriptive name of single elements and compounds.

For purposes of this form, a product is defined as hazardous if it possesses one or more of the following charateristics: (1) has a flash-point below 200 degrees Farenheit, closed cup or subject to spontaneous heating; (2) has a threshold limit value below 500 ppm gases and vapor below 5 mg/m<sup>3</sup>for dust, fumes and mist, and below 25 MPPCF for mineral dust; (3) a single dose oral LD50 below 500 mg/kg; (4) causes burns to the skin in the short-term exposure or is systemically toxic by skin contact; (5) has been demonstrated to be a skin or eye irritant or causes respiratory irritation; (6) may cause skin or respiratory sensitization; (7) has teratogenic, mutagenic or other toxic effects; (8) may cause asphyxia or pneumoconiosis; (9) in the course of normal operations may produce dusts, gases, fumes, vapor, mist, or smoke which have one or more of the above characteristics; (10) is hazardous according to OSHA 1910.1200(g)(2)(vii).

OCCUPATIONAL CONTROL PROCEDURES (Consult your Industrial Hygienist or Occupational Health Specialist.)

Protective Equipment

Type of protective equiment that is necessary for the safe handling and use of this product.

Ventilation

Normal means adequate to maintain permissible concentrations. Ventilation: type, i.e. local exhaust, mechanical, etc.

Permissible Concentrations

Indicates Threshold Limit Value (TLV) and / or Time Weighted Average (TWA) as established by the American Conference of Governmental Industrial Hygienists and/or standards promulgated by the Occupational Safety and Health Administration.

EMERGENCY AND FIRST AID PROCEDURES

Give first aid and emergency procedures in case of eye and/or skin contact, ingestion and inhalation.

PHYSIOLOGICAL EFFECTS

Acute Exposures (Eye, Skin, Respiratory System)

Refers to the most common effects that would be expected to occur from direct contact with the product.

Chronic

Refers to the effects that are most likely to occur from repeated or prolonged exposure.

Sensitizer

Means a substance which will cause on or in normal living tissue, through an allergic or photodynamic process, a hypersensitivity which becomes evident on reapplication of, or exposure to, the same substance.

Median Lethal Dose or Concentration (LD50,LC50)

Refers to that dose or concentration of the material which will produce death in 50 per cent of the animals. For inhalation, exposure time is indicated.

Irritation Index

Refers to an empirical score (Draize Method) for eye and skin irritation which tested by the method described, if numbers are not available, a yes or no answer indicates whether or not the material is an irritant.

FIRE PROTECTION INFORMATION

Ignition Temperature

Refers to the temperature in degrees Farenheit, at which a liquid will give off enough flammable vapor to ignite and burn continuously for 5 seconds.

Flash Point (State Method used)

Refers to the temperature in degrees Farenheit, at which a liquid will give off enough flammable vapor to ignite.



Flammable Limits

Refers to the range of gas or vapor concentration (percent by volume in air) which will burn or explode if an ignition source is present. Lower means the the lower flammable limit and upper means the upper flammable limit given in percent.

Products Evolved When Subjected to Heat or Combustion.

The products evolved when this material is subjected to heat or combustion. Includes temperature at which oxidation or other forms of degradation occurs.

Recommended Fire Extinguishing Agents and Special Procedures

Specifies the fire fighting agents that should be used to extinguish fires. If unusual fire hazards are involved or special procedures indicated, this is specified.

Unsusual Fire or Explosive Hazards

Specifies hazards to personnel in case of fire, explosive danger.

**ENVIRONMENTAL PROTECTION** 

Specifies how this product can be successfully disposed of.

Indicates precautions necessary in the event that leakage or breakage occurs. Included are (a) clean-up procedures, (b) personal protective equipment if necessary, (c) hazards that may be created, i.e. fire, explosion, etc.

PRECAUTIONARY LABEL

Label that is required or recommended.

Requirements for Transportation, Handling and Storage

Specifies handling and storage procedures. Gives ICC, DOT, or other regulations related to safety and health for transportation.

CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (or Range)

In degrees Farenheit or Celsius Boiling Point at 760 mmHg.

Vapor Pressure

Refers to the pressure of saturated vapor above the liquid expressed in mm of Hg at 20 degrees Celsius or 68 degrees Farenheit.

Specific Gravity

The ratio of the density of the product to the density of water.

Vapor Density

The ratio of the density of the vapor at saturation concentration ( 20 degrees Celsius or 68 degrees Farenheit to the density of air at 760 mmHg. )

Appearance and Odor

Refers to the general characterization of the material, e.g. powder, colorless liquid, aromatic odor, etc.

рΗ

Refers to the degree of acidity or basicity of the material in a specific concentration.

pH1-5 - STRONGLY ACIDIC pH5-7 - WEAKLY ACIDIC pH7-9 - WEAKLY BASIC pH9-14 - STRONGLY BASIC

Solubility

Refers to the solubility of a material by weight in water at room temperature. The term negli-gible, less than 0.1 %; slight, 0.1 to 1%; moderate, 1 to 10%; appreciable, 10% or greater. Gives solubility in organic solvents where appropriate.

Percent Volatile by volume

Refers to the amount volatized at 20 degrees Celsius or 68 degrees Farenheit when allowed to evaporate.

Evaporation

Gives the rate of evaporation compared to a standard

Viscosity

Measure of flow characteristics in Kinematic viscosity of Saybolt Universal Seconds.

Hazardous Polymerization

Hazardous polymerization is that reaction which takes place at a rate which produces large amounts of energy. Indicates whether it may or may not occur and under what storage conditions.

Does the Material React Violently

Indicates whether the material will react violently, releasing large amounts of energy when exposed under conditions listed.

Composition

Components of the product as manufactured.

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